AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the instant application:

Listing of Claims:

1. (Currently amended) A ~~pepsin sensitive~~ modified Cry protein, said protein comprising , ~~characterized in that it has~~ at least one additional pepsin cleavage site relative to a corresponding unmodified Cry protein, wherein said modified Cry protein has increased sensitivity to degradation by pepsin.

2. (Currently amended) The modified Cry protein ~~as claimed in claim~~ of Claim 1, ~~characterized in that the~~ wherein the at least one additional pepsin cleavage site is represented by an amino acid residue chosen from leucine, phenylalanine and glutamic acid residues.

3. (Currently amended) The modified Cry protein ~~as claimed in either of claims 1 and 2,~~ of Claim 1, ~~characterized in that it is selected from the~~ which is selected from the group consisting of Cry1, Cry3, Cry4, Cry7, Cry8, Cry9, Cry10, Cry16, Cry17, Cry19 and Cry20 proteins.

4. (Currently amended) The modified Cry protein ~~as claimed in claim~~ of Claim 3, ~~characterized in that it is a~~ wherein the Cry9 protein is Cry9C protein.

5. (Currently amended) The modified Cry protein ~~as claimed in claim~~ of Claim 4, ~~characterized in that it is a~~ wherein the Cry9C protein is Cry9Ca1 protein.

6. (Currently amended) The modified Cry protein ~~as claimed in one of claims 1 to 5, characterized in that it has~~ of Claim 1, wherein the at least one additional pepsin cleavage site

is in at least one of the inter-α-helix loops of domain I of said modified Cry protein.

7. (Currently amended) The modified Cry protein ~~as claimed in one of claims 1 to 6, characterized in that it has~~ of Claim 6, wherein the at least one additional pepsin cleavage site is in the inter-α-helix loop linking the α3 and α4 helices of domain I.

8. (Currently amended) The modified Cry protein ~~as claimed in one of claims 5 to 7, characterized in that it has an~~ of Claim 5, wherein the at least one additional pepsin cleavage site is at position 164.

9. (Currently amended) The modified Cry protein ~~as claimed in claim 8, characterized in that it is selected from the Cry proteins, the sequences of which are represented by the identifiers~~ of Claim 8, further comprising an amino acid sequence selected from the group consisting of SEQ ID NO:4, SEQ ID NO:6 ~~or~~ and SEQ ID NO:8.

10. (Currently amended) The modified Cry protein ~~as claimed in one of claims 1 to 5, characterized in that~~ of Claim 1, wherein the at least one additional pepsin cleavage site is ~~sites are~~ introduced by substituting one or more aspartic acid ~~residues~~ residue with one or more glutamic acid ~~residues~~ residue, substituting one or more tryptophan ~~residues~~ residue with one or more phenylalanine ~~residues~~ residue, and substituting one or more valine or one or more isoleucine ~~residues~~ residue with one or more leucine ~~residues~~ residue.

11. (Currently amended) The modified Cry protein ~~as claimed in claim 11, characterized in that~~ of Claim 10, wherein the degree of substitutions which said modified Cry protein possesses is 25% of all aspartic acid, tryptophan, valine or isolecine residues.

12. (Currently amended) A method for ~~increasing the pepsin sensitivity of Cry proteins, characterized in that~~ modifying a Cry protein to increase its sensitivity to degradation

by pepsin, comprising introducing into said Cry protein at least one additional pepsin cleavage site ~~is introduced into said Cry proteins~~ relative to a corresponding unmodified Cry protein.

13. (Currently amended) The method ~~as claimed in claim 12, characterized in that the~~ of Claim 12, wherein the at least one additional pepsin cleavage site introduced is represented by an amino acid ~~chosen~~ selected from the group consisting of leucine, phenylalanine and glutamic acid ~~residues~~.

14. (Currently amended) The method ~~as claimed in either of claims 12 and 13, characterized in that it applies to the Cry proteins~~ of Claim 12, wherein the Cry protein to be modified is selected from the group consisting of Cry1, Cry3, Cry4, Cry7, Cry8, Cry9, Cry10, Cry16, Cry17, Cry19 and Cry20 proteins.

15. (Currently amended) The method ~~as claimed in claim 14, characterized in that it applies to~~ of Claim 14, wherein the Cry9 protein is ~~the~~ Cry9C protein.

16. (Currently amended) The method ~~as claimed in claim 15, characterized in that it applies to~~ of Claim 15, wherein the Cry9C protein is ~~the~~ Cry9Ca1 protein.

17. (Currently amended) The method ~~as claimed in one of claims 12 to 16, characterized in that~~ of Claim 12, wherein the at least one additional pepsin cleavage site is introduced into at least one of the inter-α-helix loops of domain I of said modified Cry ~~proteins~~ protein.

18. (Currently amended) The method ~~as claimed in one of claims 12 to 17, characterized in that~~ of Claim 17, wherein the at least one additional pepsin cleavage site is introduced into the inter-α-helix loop linking the α and α4 helices of domain I of said modified Cry protein.

19. (Currently amended) The method ~~as claimed in one of claims 16 to 18, characterized in that an~~ of Claim 16, wherein the at least one additional pepsin cleavage site is introduced at position 164.

20. (Currently amended) The method ~~as claimed in one of claims 12 to 16, characterized in that the~~ of Claim 12, where the at least one additional pepsin cleavage ~~sites are~~ site is introduced by substituting one or more aspartic acid ~~residues~~ residue with one or more glutamic acid ~~residues~~ residue, substituting one or more tryptophan ~~residues~~ residue with one or more phenylalanine ~~residues~~ residue, and substituting one or more valine or one or more isoleucine ~~residues~~ residue with one or more leucine ~~residues~~ residue.

21. (Currently amended) The method ~~as claimed in claim 20, characterized in that~~ of Claim 20, wherein the degree of substitution which said modified Cry protein possesses is less than or equal to 25% of all aspartic acid, tryptophan, valine or isolecine residues.

22. (Currently modified) A polynucleotide encoding ~~a~~ the modified Cry protein ~~as claimed in one of claims 1 to 11~~ of Claim 1.

23. (Currently amended) A chimeric gene comprising, ~~functionally~~ operatively linked to one another~~, at least~~:

a. ~~one~~ a promoter which is functional in a host organism;

b. ~~a~~ the polynucleotide ~~as claimed in claim~~ of Claim 22; and

c. a terminator element which is functional in a host organism.

24. (Currently amended) The chimeric gene ~~as claimed in claim 23, characterized in that~~ of Claim 23, wherein the promoter and the terminator element are functional in plants.

25. (Currently amended) An expression or transformation vector containing ~~a~~ the

chimeric gene ~~as claimed in either of claims 23 and 24~~ of Claim 23.

26. (Currently amended) The vector ~~as claimed in claim 27, characterized in that it is~~ of Claim 25, wherein the vector is selected from the group consisting of a plasmid, a phage ~~or~~ and a virus.

27. (Currently amended) A host organism transformed with ~~one of the vectors as claimed in either of claims 25 and 26~~ the vector of Claim 25.

28. (Currently amended) The transformed host organism ~~as claimed in claim 27, characterized in that it is~~ of Claim 27, wherein said transformed host organism is a plant.

29. (Currently amended) The plant ~~as claimed in claim 28, characterized in that it contains, in addition to a chimeric gene as claimed in either of claims 23 and 24,~~ of Claim 28, further comprising at least one other chimeric gene ~~containing~~ comprising a polynucleotide encoding a protein of interest.

30. (Currently amended) A part of ~~a plant as claimed in claim 29~~ the plant of Claim 28.

31. (Currently amended) ~~A seed~~ Seeds from ~~a~~ the plant ~~as claimed in claim 29~~ of Claim 28, wherein the seeds comprise the chimeric gene.

32. (Currently amended) A method for producing ~~the modified Cry proteins as claimed in one of claims 1 to 11, characterized in that it comprises at least the steps of~~ a Cry protein modified to increase its sensitivity to degradation by pepsin comprising :

a. culturing ~~a~~ the transformed host organism ~~according to the invention~~ of Claim 27 in a culture medium suitable for the growth and ~~for the~~ multiplication of said organism~~,~~; and

b. extracting the Cry ~~proteins~~ protein produced by the transformed host organism cultured in step (a).

33. (Currently amended) The method ~~as claimed in claim 32, characterized in that it comprises a step (c) of purification of~~ of Claim 32, further comprising purifying the Cry ~~proteins~~ protein extracted in step (b).

34. (Currently amended) The method ~~as claimed in either of claims 32 and 33, characterized in that the~~ of Claim 32, wherein the transformed host organism is a microorganism.

35. (Currently amended) The method ~~as claimed in claim 34, characterized in that the host~~ of Claim 34, wherein the transformed host organism is a *Bacillus thuringiensis* bacterium.

36. (Currently amended) A monoclonal or polyclonal antibody~~, characterized in that it is directed against a modified Cry protein as claimed in one of claims 1 to 11~~ which specifically binds to the Cry protein of Claim 1.

37. (New) The plant of Claim 29, wherein the plant is a monocotyledon.

38. (New) The plant of Claim 37, wherein the monocotyledon is selected from the group consisting of a corn plant, a wheat plant, and a rice plant.

39. (New) The plant of Claim 29, wherein the plant is a dicotyledon.

40. (New) The plant of Claim 39, wherein the dicotyledon is selected from the group consisting of a rapeseed plant, a soybean plant, a tobacco plant and a cotton plant.